

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 40 AND MD 63 IN WASHINGTON COUNTY. US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT (8) PHASE, FULL-TRAFFIC-ACTUATED MODE. EXCLUSIVE/PERMISSIVE LEFT TURN PHASES WILL BE PROVIDED ON THE EASTBOUND, WESTBOUND AND NORTHBOUND APPROACHES. RIGHT TURN OVERLAP MOVEMENTS WILL BE PROVIDED FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES. ALTERNATE PEDESTRIAN PHASES WILL BE PROVIDED ACROSS ALL FOUR APPROACHES OF THE INTERSECTION.

III. CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE *6" BASE MOUNTED CABINET INSTALLED DURING PHASE I CONSTRUCTION.

IV. PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT SIX ARE AS FOLLOWS:

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ASSISTANT DISTRICT
ENGINEER - MAINTENANCE
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MR. JOHN TRUE
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MR. GEORGE SMALL
ASSISTANT DISTRICT
ENGINEER-TRAFFIC
PHONE: (301)729-8444

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410)787-7630

THE POWER COMPANY REPRESENTATIVE IS
ALLEGHENY POWER COMPANY
MR. RAYMOND KETROW, JR.
PHONE: (301)582-5272

EQUIPMENT LIST "A"

A.EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
9001	1 EA	816	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, HOUSED IN A NEMA SIZE *6" BASE MOUNTED CABINET.
9002	3 EA	816	FOUR CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER - RACK MOUNT
9003	189 SF	813	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 3 EACH R10-12 (36"x42") - MAST ARM MOUNT - 4 EACH ASSOCIATED SHIELD ASSEMBLY (24"x51") - POLE MOUNT - 4 EACH ASSOCIATED SHIELD ASSEMBLY (36"x75") - POLE MOUNT - 2 EACH D-30 (DUAL FACED) (NATIONAL PIKE) - 2 EACH D-30 (DUAL FACED) (GREENCASTLE PIKE) - 2 EACH D-30 (DUAL FACED) (VAR, x16") - MAST ARM MOUNT

EQUIPMENT LIST "C"

C.MATERIAL TO BE REMOVED AND RETURNED TO SHA.

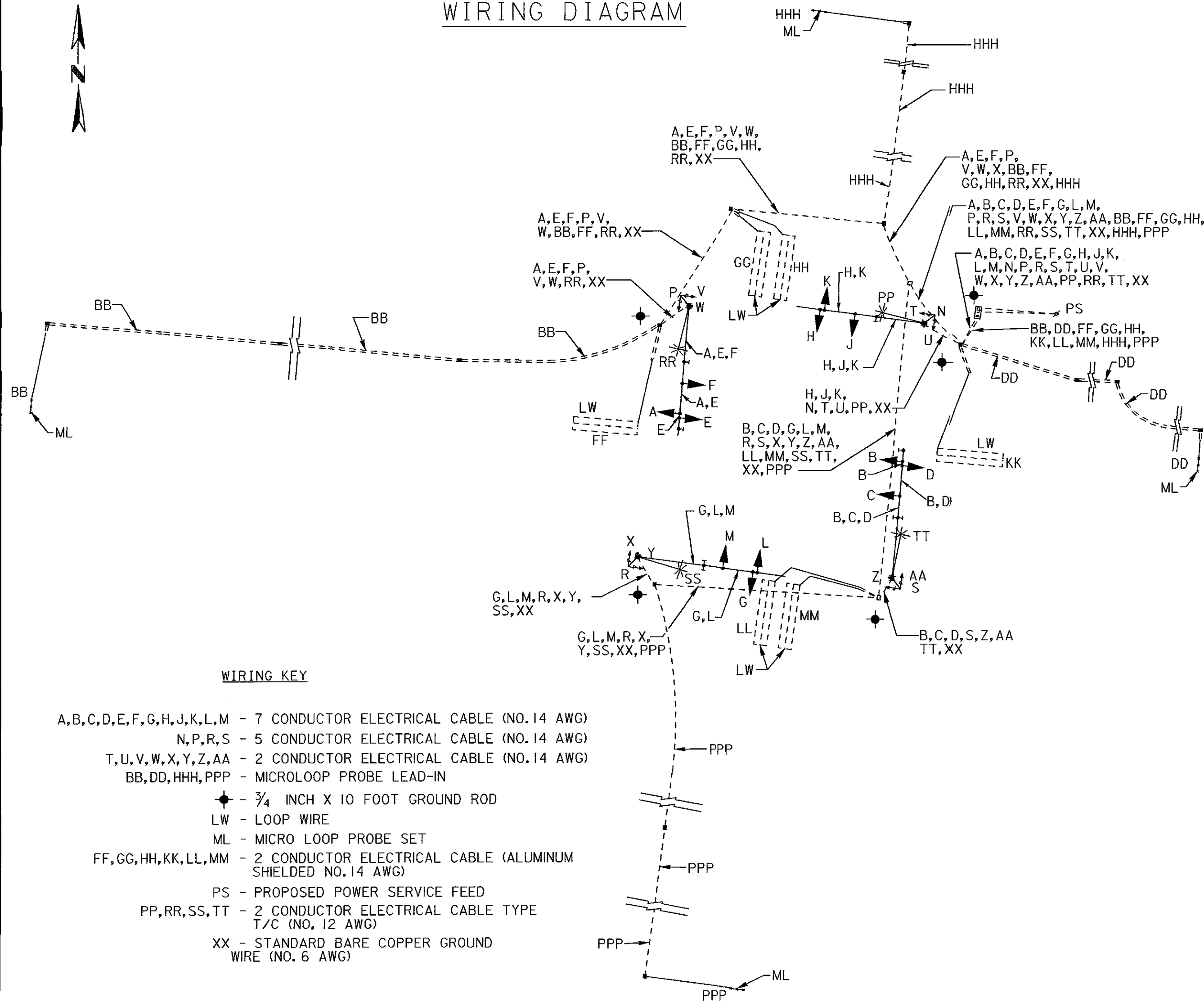
SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
2006	10 CY	205	TEST PIT EXCAVATION
5009	750 LF	555	12" WHITE PERMANENT PREFORMED PAVEMENT MARKINGS
5010	160 LF	555	24" WHITE PERMANENT PREFORMED PAVEMENT MARKINGS
8001	1100 LF	810	2 CONDUCTOR TRAY CABLE (NO.12 AWG)
8003	625 LF	805	2" SCHEDULE 80, RIGID PVC CONDUIT - TRENCHED
8004	22 CY	801	CONCRETE FOR SIGNAL FOUNDATION
8009	590 LF	810	NO. 6 AWG STRANDED BARB COPPER GROUND WIRE
8010	35 LF	805	1 INCH ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8011	275 LF	805	3" SCHEDULE 80, RIGID PVC CONDUIT - TRENCHED
8012	175 LF	805	4" SCHEDULE 80, RIGID PVC CONDUIT - TRENCHED
8013	150 LF	805	2" SCHEDULE 80, RIGID PVC CONDUIT - SLOTTED
8014	250 LF	805	4" SCHEDULE 80, RIGID PVC CONDUIT - SLOTTED
8015	30 LF	805	1" LIQUID TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8016	1 EA	807	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 100 AMP
8017	1 EA	810	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
8018	3 EA	810	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
8019	16 EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8021	8 EA	813	BAND SIGN TO SUPPORT
8022	88 SF	813	INSTALL OVERHEAD SIGN
8024	3 EA	818	STEEL POLE WITH A SINGLE 60-FOOT MAST ARM
8025	1 EA	818	STEEL POLE WITH A SINGLE 70-FOOT MAST ARM
8026	1 EA	SP	AS-BUILT FOR TRAFFIC SIGNAL
8027	4 EA	806	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
8028	20 LF	805	3" DIAMETER PVC CONDUIT, SCHEDULE 80 RISER
8029	5 EA	804	GROUND ROD - 3/4" INCH DIAMETER x 10 FOOT
8031	12 EA	814	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8032	48 EA	814	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8033	16 EA	814	12 INCH PEDESTRIAN SIGNAL HEAD SECTION
8034	1450 LF	810	ELECTRICAL CABLE- 2 CONDUCTOR (ALUMINUM SHIELDED)
8035	3100 LF	810	ELECTRICAL CABLE- 2 CONDUCTOR (NO 14 AWG)
8036	950 LF	810	ELECTRICAL CABLE- 5 CONDUCTOR (NO 14 AWG)
8037	3750 LF	810	ELECTRICAL CABLE- 7 CONDUCTOR (NO 14 AWG)
8038	4000 LF	810	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14 AWG)
8039	1200 LF	815	SAWCUT FOR SIGNAL (LOOP DETECTOR)
8040	8 EA	817	PUSHBUTTON AND SIGN
8041	4 EA	SP	20-FOOT LIGHTING ARM ON SIGNAL STRUCTURE
8042	1 EA	SP	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 5	*G/R	*G/R	R	*G/R	*G/R	R	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
1 & 5 CHANGE	*G/R	*G/R	R	*G/R	*G/R	R	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
PHASE 1 & 6	*G/R	*G/R	G	R	R	R	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
1 CHANGE	*Y/G	*Y/G	G	R	R	R	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	*G/G	*G/G	G	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
5 CHANGE	R	R	R	*Y/G	*Y/G	G	R	R	R	R	R	R/G	R	R	R/G	DW	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW
ALT 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW
PED CLEAR	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW
ALT 2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW
PHASE 3 & 8	R	R	R	R	R	R	*G/R	*G/R	G	R	R	R	R	R	R	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	*Y/G	*Y/G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW
ALT 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	DW	DW	DW	DW	DW
PED CLEAR	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW
ALT 4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW
FLASHING OPERATION	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	DARK	DARK	DARK	DARK	DARK

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNAL PLAN
US 40 AND MD 63
GENERAL INFORMATION SHEET

DRAWN BY: B.T./J.G.	F.A.P. NO. N/A	TS NO. 1199E- GI	SHEET NO. 5 OF 5
CHECKED BY: A.B.	S.H.A. NO. W-657-501-685	T.I.M.S. NO. E486	
SCALE: 1" = 20'	COUNTY: WASHINGTON	LOG MILE: *2100401.454	
DATE: 2/07/77			

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